

REMARKS

This Amendment is fully responsive to the non-final Office Action dated June 27, 2008, issued in connection with the present application. A petition for a three-month extension of time accompanies this Amendment. Claims 1-42 were all the claims previously pending in the present application. By this Amendment, claims 3-5, 7-11, 15-21, 24-26, 28-32 and 36-42 have been canceled without prejudice or disclaimer to the subject matter therein; and claims 1, 2, 6, 22, 23 and 27 have been amended. Accordingly, claims 1, 2, 6, 12-14, 22, 23, 27 and 33-35 now remain pending in the present application. No new matter has been introduced by the amendments made to the claims. Favorable reconsideration is respectfully requested.

At the outset, the Applicants thank Examiner Tekle for granting the personal interview conducted on July 16, 2008 and the telephone interviews conducted on October 6, 2008 and October 7, 2008 with the Applicants' representative.

During the personal interview on July 16, 2008, the present invention (as recited in independent claim 1, as an exemplary independent claim) and the Hatanaka and Nakamura references were discussed in detail. During the personal interview and the telephone interviews both the present application and application serial no. 10/712,372 (i.e., a related application) were discussed.

Specifically, during the personal interview, it was noted that Hatanaka and Nakamura fail to disclose or suggest the following features: a) recorded recovery data with AV data, wherein the recovery data is interleaved with AV data on the recording medium during AV data recording; b) recorded simultaneously interleaved recovery data with AV data, wherein the recovery data contains file management information for the recorded AV data. In contrast, it was noted that Hatanaka and Nakamura appear to disclose the use of an interleaved parity bit or error bit that identifies the existence of an error, but does not include the use of interleaved recovery data.

At the conclusion of the interview, the Examiner agreed that the cited prior art failed to clearly disclose or suggest the interleaving of recovery data with AV data during AV data recording. However, the Examiner also indicated that such interleaving of data was common in MPEG technology. More specifically, the Examiner indicated that MPEG technology includes

the use of some form of recovery data interleaved with AV data for recovering lost data during AV data recording. In response to this, it was noted that all the cited prior art provided examples of MPEP technology, and none of the references clearly disclosed or suggested the use of recovery data interleaved with AV data during AV data recording. The Examiner indicated that additional information supporting his position with regard to MPEP technology would be provided in a subsequent Office Action to be issued in application serial no. 10/712,372.

During the telephone interviews, the Office Action in application serial no. 10/712,372 dated September 24, 2008 was discussed. Specifically, after a detailed review of the Office Action (i.e., in application serial no. 10/712,372), it was noted that no additional information regarding the MPEG technology was included, as indicted during the personal interview conducted on July 16, 2008. Additionally, a detailed discussion regarding the present invention and the cited prior art took place. As a result of the discussion, an agreement was reached with regard to amending the independent claims to clearly distinguish the present invention from the cited prior art (including the MPEG technology referred to by the Examiner).

Accordingly, proposed claim amendments were sent to the Examiner on October 7, 2008 based on the discussion during the telephone interviews, and the proposed amendments were approved by both the Examiner and his Supervisor. Specifically, the proposed claim amendments amended independent claim 1 to point out that “the recovery data and the AV data are recorded in an alternating fashion and in contiguous areas on the recording medium during AV data recording.” The Examiner indicated that the proposed claim amendments would distinguish the present invention from the cited prior art if filed in a formal response to the Office Action. It was also indicated that similarly amendments would be made in the present application as well as in application serial no. 10/712,372. The Examiner also indicated that further search would likely be necessary before making a final determination regarding the allowability of the claims.

In the Office Action, claims 1-4, 6-19, 21-25 and 27-42 have been rejected under 35 USC 103(a) as being anticipated by Higashida et al. (U.S. Patent No. 6,862,401, hereafter “Higashida”) in view of Nakamura et al. (U.S. Publication No. 2004/0126101, hereafter “Nakamura”). Additionally, claims 5, 20 and 26 have been rejected under 35 U.S.C. 103(a) as

being unpatentable over Higashida and Nakamura.

As noted above, claims 3-5, 7-11, 15-21, 24-26, 28-32 and 36-42 have canceled thereby rendering the above rejection to those claims moot. Additionally, the Applicants have amended independent claims 1 and 22 to help further distinguish the present invention from the cited prior art. The amendments made to independent claims 1 and 22 are consistent with the claim amendments approved by the Examiner and his supervisor on October 7, 2008.

For example, claim 1 (as amended) recites the following features:

“[a] recording apparatus for recording to a recording medium AV data containing at least one of audio data and video data, and recovery data for restoring management information for the AV data when AV data recording does not end normally, the apparatus comprising:

a recovery data generator for generating recovery data for each constant or variable period;

an AV data generator for generating AV data; and

a recorder for interleaving the recovery data with the AV data, and recording simultaneously interleaved recovery data and the AV data on the recording medium during AV data recording such that the recovery data and the AV data are recorded in an alternating fashion and in contiguous areas on the recording medium during AV data recording,

wherein the recovery data contains file management information for the recorded AV data.” (Emphasis added).

The features noted above in claim 1 are similarly recited in independent claim 22. Specifically, claim 22 is a recording method reciting interleaving and recording steps similar to the interleaving and recording features of the recorder of claim 1. The amendments to claims 1 and 22 are fully supported by the Applicants’ disclosure (see e.g., Fig. 2, Fig. 7; pg. 14, lines 14-19; pg. 18, lines 11-17; and Abstract, lines 16-18).

As noted during the interviews, claims 1 and 22 (a amended) emphasize that the recovery data is interleaved with the AV data, and both the interleaved recovery data and the AV data are simultaneously recorded on a recording medium during an AV data recording operation such that the recovery data and the AV data are recorded in an alternating fashion and in contiguous areas on the recording medium during AV data recording. Recording the interleaved recovery data

and the AV data on a recording medium during an AV data recording operation in this manner allows for quick and easy recovery of AV data and management information (included in the recovery data) if data is lost (e.g., due to a power loss).

In the Office Action, the Examiner relies on Higashida in view of Nakamura for disclosing or suggesting all the features recited in independent claims 1 and 22. Specifically, the Examiner relies on Higashida for disclosing or suggesting all the features recited in independent claims 1 and 22 except for a means for interleaving the recovery data with the AV data, and recording the interleaved recovery data and the AV data on the recording medium during AV data recording. The Examiner relies on Nakamura for disclosing or suggesting these features.

However, as noted above, the Applicants have amended independent claims 1 and 22 as suggested during the telephone interviews with the Examiner and subsequently approved by the Examiner and his supervisor on October 7, 2008. Specifically, independent claims 1 and 22 were amended to point out that the recovery data interleaved with the AV data during AV data is simultaneously recorded such that the recovery data and the AV data are recorded in an alternating fashion and in contiguous areas on the recording medium during AV data recording. As agreed during the telephone interviews, these features are not disclosed or suggested by the cited prior art.

Briefly, Higashida fails to disclose or suggest interleaving the recovery data with the AV. Instead, Higashida merely discloses the use of history data to restore lost data. Moreover, Higashida appears to teach away from recording interleaved recovery data and the AV data on the same recording medium during AV data recording. As described in Higashida, AV data is stored on a recording medium (see e.g., col. 6, lines 50-52), and the file management information (corresponding to the recovery data) is recorded separately after the recording of the AV data is complete (see e.g., col. 1, lines 30-32). Additionally, Higashida discloses that recording file management information (i.e., recovery data) and the AV data together would incur very large overhead costs.

Thus, Higashida teaches away from recording interleaved recovery data and AV data on the same recording medium during AV data recording. Finally, nothing in Higashida discloses simultaneously recorded on a recording medium during an AV data recording operation such that the recovery data and the AV data are recorded in an alternating fashion and in contiguous areas

on the recording medium during AV data recording.

Nakamura also fails to overcome the deficiencies noted above in Higashida. Although Nakamura discloses the use of error detection for indicating an error during AV data recording, Nakamura fails to clearly disclose or suggest the interleaving of recovery data with AV data during AV data recording. Additionally, although the Examiner indicated that such interleaving of data was common in MPEG technology, it was agreed that none of the cited prior art disclosed or suggested (including the common MPEG technology indicated by the Examiner) recovery data interleaved with the AV data during AV data is simultaneously recorded such that the recovery data and the AV data are recorded in an alternating fashion and in contiguous areas on the recording medium during AV data recording.

Based on the above discussion, no combination of the cited prior art would result in, or otherwise render obvious, independent claims 1 and 22 (as amended). Additionally, no combination of the cited prior art would result in, or otherwise render obvious, claims 2, 6, 12-14, 23, 27 and 33-35 at least by virtue of their respective dependencies from independent claims 1 and 22.

In light of the above, the Applicants submit that all the pending claims are patentable over the prior art of record. The Applicants respectfully request that the Examiner withdraw the rejections presented in the outstanding Office Action, and pass the present application to issue. If the Examiner feels there are any issues remaining which can be resolved by telephone, it is respectfully requested that the Examiner contact the undersigned in order to resolve such issues.

Respectfully submitted,

Shiro IWASAKI et al.

/Mark D. Pratt/

By: 2008.12.17 16:10:20 -05'00'

Mark D. Pratt

Registration No. 45,794

Attorney for Applicants

MDP/ats
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
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